

Notice of Allowability

Application No.

10/716,664

Examiner

Kevin M. Nguyen

Applicant(s)

YABU ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 20 November 2003.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

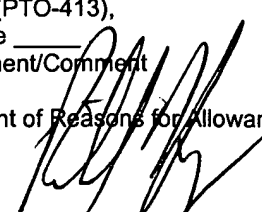
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 2/17/2004, 3/31/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

REASONS FOR ALLOWANCE

1. Claims 1-14 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The present invention is directed to a field emission display (FED) panel having a voltage capable of giving an electric field strength not lower than the threshold of electron emission is applied between the cathodes and the anodes, and while the cut-off voltage is not being applied between the cathodes and the gates, full-screen white display is performed at the maximum luminance on the entire display screen.

The closest prior art, Park (US 5,272,419) discloses a FED panel including the second addressing electrode is supplied with zero voltage and the cut-off electrode is supplied with a positive voltage during blanking (see the abstract). Suzuki et al (US 5,627,436) discloses multi-electron beam source with a cut off circuit and image data using the same (see the abstract). Onodaka et al (US 5,589,738) discloses a FED panel including the voltage at the point "a" is decreased to a level below the voltage V_{TH} of Fig. 8 to thereby prevent emission of electrons from the field emission cathode (FEC) element in the image cell section (20), resulting in luminescence of the anode An being stopped (col. 10, lines 21-25).

The improvement comprises a FED panel comprising a control unit for controlling the operation of a display panel driving circuit in order to complete, when a display completing signal is generated, application of the cut-off voltage or a driving voltage capable of providing a particular display state, after a predetermined time passes from

the moment when a potential of the anode decreases below a threshold potential capable of causing electron emission from the electron emitters with the cut-off voltage or the driving voltage capable of providing the particular display state being applied between the cathodes and the gates.

This distinct feature has been added to the independent claims 1 and 13 and render the above limitations are allowable and along with other limitations as recited in the independent claims 1 and 13.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the Patent Application Information Retrieval system, see

<http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the

Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

Kevin M. Nguyen
Patent Examiner
Art Unit 2629

KMN
September 11, 2006

A handwritten signature in black ink, appearing to read 'R. Hjerpe', is positioned above the printed name and title.

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600